C L A I M S

1. A CDMA receiving apparatus characterized by comprising:

a radio reception unit which outputs a radio reception output in an uplink communication channel on which an individual channel occupied by each user and a shared channel shared among all users are multiplexed on the basis of a CDMA scheme, by performing signal processing for a radio band signal received by a reception antenna;

a channel estimation circuit which receives a signal corresponding to an individual channel of an arbitrary user which is obtained by performing despreading operation for the radio reception output, and calculates a channel estimation value indicating phase and amplitude fluctuations due to a channel from phase/amplitude information after despreading of a known Pilot portion symbol;

a channel estimation value correction circuit which corrects the channel estimation value from said channel estimation circuit on the basis of a reception power fluctuation due to uplink transmission power control which is caused by a timing offset between the individual channel of the user and the shared channel; and

a shared channel demodulation circuit which

demodulates a signal corresponding to the shared channel of the user which is obtained by performing despreading operation for the radio reception output on the basis of the channel estimation value corrected by said channel estimation value correction circuit.

2. A CDMA receiving apparatus according to claim 1, characterized by further comprising a reception power difference correction coefficient calculation circuit which receives timing offset information of the user and uplink transmission power control command information, and calculates a reception power difference correction coefficient, which corrects a reception power fluctuation, by estimating a reception power fluctuation corresponding to an uplink power control command in a timing offset interval,

wherein said channel value correction circuit corrects a channel estimation value from said channel estimation circuit on the basis of a reception power difference correction coefficient from said reception power difference correction coefficient calculation circuit.

3. A CDMA receiving apparatus according to claim 1, characterized in that said channel estimation value correction circuit corrects a plurality of channel estimation values before and

after the timing which are obtained by said channel estimation circuit on the basis of the reception power fluctuation, and then outputs the channel estimation values after correction upon performing averaged weighting thereof.

4. A CDMA receiving apparatus according to claim 4, characterized by further comprising

a path detection circuit which detects path delays associated with an individual channel and shared channel of the user from the radio reception output,

an individual channel despreading circuit which outputs a signal corresponding to the individual channel of the user by performing despreading operation for the radio reception output on the basis of the path delay of the individual channel of the user, and

a shared channel despreading circuit which outputs a signal corresponding to the shared channel of the user by performing despreading operation for the radio reception output on the basis of the path delay of the shared channel of the user.

5. A CDMA receiving apparatus according to claim 4, characterized by further comprising an individual channel demodulation circuit which demodulates a Data portion of the individual channel of the user from the signal corresponding to the

individual channel on the basis of the channel estimation value.

6. A CDMA receiving apparatus according to claim 5, characterized by further comprising

an individual channel path demodulation unit, for each individual channel of the user, which comprises said individual channel despreading circuit, said channel estimation circuit, and said individual channel demodulation circuit,

an individual channel RAKE combining circuit which outputs an individual channel demodulation result on the user which is obtained by RAKE-combining demodulation outputs from said individual channel demodulation circuits of said individual channel path demodulation units,

a shared channel demodulation unit, for each shared channel of the user, which comprises said shared channel despreading circuit, said channel estimation value correction circuit, and said shared channel demodulation circuit, and

a shared channel RAKE combining circuit which outputs a shared channel demodulation result on the user which is obtained by RAKE-combining demodulation outputs from said shared channel demodulation circuits of said shared channel path demodulation units.

7. A CDMA receiving method characterized

by

comprising:

the radio reception step of outputting a radio reception output in an uplink communication channel on which an individual channel occupied by each user and a shared channel shared among all users are multiplexed on the basis of a CDMA scheme, by performing signal processing for a radio band signal received by a reception antenna;

the channel estimation step of receiving a signal corresponding to an individual channel of an arbitrary user which is obtained by performing despreading operation for the radio reception output, and calculating a channel estimation value indicating phase and amplitude fluctuations due to a channel from phase/amplitude information after despreading of a known Pilot portion symbol;

the channel estimation value correction step of correcting the channel estimation value calculated on the basis of a reception power fluctuation due to uplink transmission power control which is caused by a timing offset between the individual channel of the user and the shared channel; and

the shared channel demodulation step of demodulating a signal corresponding to the shared channel of the user which is obtained by performing

despreading operation for the radio reception output on the basis of the channel estimation value corrected in the channel estimation value correction step.

8. A CDMA receiving method according to claim 7, characterized by further comprising the reception power difference correction coefficient calculation step of receiving timing offset information of the user and uplink transmission power control command information, and calculating a reception power difference correction coefficient, which corrects a reception power fluctuation, by estimating a reception power fluctuation corresponding to an uplink power control command in a timing offset interval,

wherein the channel value correction step comprises the step of correcting a calculated channel estimation value on the basis of a calculated reception power difference correction coefficient.

9. A CDMA receiving method according to claim 7, characterized in that the channel estimation value correction step comprises

the step of correcting a plurality of channel estimation values before and after the obtained timing on the basis of the reception power

fluctuation, and

the step of outputting the channel estimation values after correction upon performing averaged weighting thereof.

10. A CDMA receiving method according to claim 7, characterized by further comprising

the path detection step of detecting path delays associated with an individual channel and shared channel of the user from the radio reception output,

the individual channel despreading step of outputting a signal corresponding to the individual channel of the user by performing despreading operation for the radio reception output on the basis of the path delay of the individual channel of the user, and

the shared channel despreading step of outputting a signal corresponding to the shared channel of the user by performing despreading operation for the radio reception output on the basis of the path delay of the shared channel of the user.

11. A CDMA receiving method according to claim 10, characterized by further comprising the individual channel demodulation step of demodulating a Data portion of the individual channel of the user

from the signal corresponding to the individual channel on the basis of the channel estimation value.

12. A CDMA receiving method according to claim 11, characterized by further comprising

the individual channel path demodulation step, for each individual channel of the user, which comprises the individual channel despreading step, the channel estimation step, and the individual channel demodulation step,

the individual channel RAKE combining step of outputting an individual channel demodulation result on the user which is obtained by RAKE-combining demodulation outputs from the individual channel demodulation steps of the individual channel path demodulation steps,

the shared channel demodulation step, for each shared channel of the user, which comprises the shared channel despreading step, the channel estimation value correction step, and the shared channel demodulation step, and

the shared channel RAKE combining step of outputting a shared channel demodulation result on the user which is obtained by RAKE-combining demodulation outputs from the shared channel demodulation steps of the shared channel path demodulation steps.